[6003]-349

T.E. (Computer Engineering) (Semester - I)
COMPUTER NETWORKS AND SECURITY
(310244) (2019 Pattern)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

1)   *Neat diagrams must be drawn whenever necessary.*

2)   *Figures to the right side indicate full marks.*

3)   *Assume Suitable data if necessary.*

4)   *Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8.*

Q1) a)   Differentiate between Circuit Switching and Packet Switching.   **[6]**

b)   Give short note on RIP.   **[6]**

c)   192.168.5.71 /26 for given address find out the   **[6]**

    i)   subnet mask?

    ii)   what is first ip address for given series?

    iii)   what is last ip address for given series?

OR

Q2) a)   Draw and explain Header format of IPV6.   **[6]**

b)   Give short note on BGP   **[6]**

c)   List and explain functions of Network Layer.   **[6]**

Q3) a)   What is socket? What are different types of socket? Explain socket functions used in connection less services with diagram.   **[6]**

b)   Explain TCP congestion control in transport layer?   **[6]**

c)   What is Quality of Service? Explain any two methods to improve QoS?**[6]**

OR

P.T.O.

Q4) a) Explain RTP protocol in detail. **[6]**

b) List and explain transport layer services. **[6]**

c) 06 32 00 0D 001C E2 17 using this UDP hexadecimal dump find out in decimal numbers **[6]**

   i) Source port no.

   ii) Destination port no.

   iii) Total length of user datagram.

Q5) a) What is HTTP? Explain HTTP request and reply messages. **[9]**

b) Write short notes on SMTP and MIME. **[8]**

OR

Q6) a) What is DHCP? Explain DHCP working with client state diagram. **[9]**

b) Write short notes on POP3 and Webmail. **[8]**

Q7) a) Differentiate between Symmetric and Asymmetric Key Cryptography. **[6]**

b) Explain model for network security. **[6]**

c) Give short note on Security Policy and mechanisms. **[5]**

OR

Q8) a) Explain Types of Network Attacks. **[6]**

b) Explain IPSec in detail. **[6]**

c) Give short note on S/MIME. **[5]**

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